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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,295	01/23/2002	Erhard Schreck	3123-424 / 20011.03	9782
7590	07/18/2005		EXAMINER	
The Law Office of Steven G. Roeder 5560 Chelsea Avenue La Jolla, CA 92037				KLIMOWICZ, WILLIAM JOSEPH
		ART UNIT	PAPER NUMBER	2652

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Office Action Summary**

Application No.	SCHRECK ET AL.
10/056,295	
Examiner	Art Unit
William J. Klimowicz	2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-10,14-16,18,23,24,31-41,44-46,48,52,53,59-68 and 70 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

Continuation of Disposition of Claims: Claims withdrawn from consideration are 11-13,17,19-22,25-30,42,43,47,49-51,54-58,69 and 71-80.

Claims Status

The proposed Amendment (Amendment A) filed on March 8, 2004 has not been entered, since the Amendment is considered Non-Responsive for the reasons articulated, *infra*.

Thus, currently, the status of the claims are as follows:

Claims 1-80 are currently pending.

Claims 1-10, 14-16, 18, 23, 24, 31-41, 44-46, 48, 52, 53, 59-68 and 70 are rejected for the reasons espoused in the Rejection, *infra*.

Claims 11-13, 17, 19-22, 25-30, 42, 43, 47, 49-51, 54-58, 69 and 71-80 are currently withdrawn from consideration as being drawn to a non-elected embodiment.

Response to Request for Withdrawal of Final Restriction Requirement

On March 8, 2004, the Applicants filed a Petition pursuant to 37 CFR § 1.181 for withdrawal of the Final Restriction Requirement.

In the Petition, the Applicants requested that claims 8, 9, 11, 12, 17, 19-22, 25-30, 37, 38, 42, 43, 47, 49-51 and 54-58 "be examined concurrently with claims 2, 4-7, 10, 14-16, 18, 23, 24, 31, 33, 35, 36, 39-41, 44-46, 48, 52, 53, 59 60."

After a thorough consideration of the Applicants' arguments and direct consultation regarding this matter with the Technology Center 2600 Special Programs Examiner, Krista Zele, the Examiner has treated the *Request for Withdrawal of Final Restriction Requirement* as a Request for Reconsideration of the Election/Restriction Requirement, and has determined that Claims 8, 9, 37, 38, 67 and 68 fall within the scope of claims considered to be generic to all Species.

Moreover, since the Amendment filed concurrently with the Applicants' petition is deemed to be Non-responsive, the Amendment has not been entered.

The Examiner is withdrawing the previous Non-Final Office action and is substituting such action with the instant Non-Final Office action.

On October 9, 2003, the Examiner required restriction between Groups I -Claims 77-80, drawn to a method of manufacturing an asymmetrical storage disk, classified in class 264, subclass 1.7, 1.33, etc. - and Group II - Claims 1-76, drawn to an asymmetrical storage disk used in a disk drive, classified in class 360, subclass 135, 97.01, etc.

Additionally, the Examiner maintained that the application contained claims directed to a Group of Species that were *a priori*, patentably distinct, from each other, and articulated in great detail a description and identification via the Applicants' originally disclosed drawing figures of the individual Species I through Species XII (see original Restriction Requirement, mailed October 9, 2003).

Moreover still, the Examiner required the Applicants to further elect from one of a sub-set of Species, identified as Sub-species A through Sub-species C.

The rationale used by the Examiner in support of the Restriction Requirement, as pertaining to the dual Groupings I and II, was that Groups I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the

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asymmetrical disk can be made by a process such as stamping or molding an asymmetrical disk second side, etc.

The rationale used by the Examiner in support of the Restriction Requirement, as pertaining to the Species, Sub-species requirement was that Species I-XII and Sub-species A-C are patentably distinct species/sub-species of the claimed invention.

On November 10, 2003, Applicants elected "with traverse," the claims of Group II, Species VI and Sub-species A, which the Applicants alleged read on Claims 1-10, 13-16, 18, 23-24, 31-41, 43-46, 48, 52-53, 59-68 and 70. The Applicants contended that the restriction was improper, since it was, in theory, possible to use some of the Species identified by the Examiner together in an undisclosed combination.

The Applicants further alleged in the Petition filed on March 6, 2004, that the Examiner's reasons for restriction did not include an appropriate explanation of 1) separate classification of the alleged distinct inventions; 2) separate status in the art when they are classified together; or 3) a different field of search for each of the alleged inventions.

Moreover still, the Applicants attacked the MPEP, stating that "the MPEP 'does not have the force of law,' " contending that the patent law statute under 35 USC 121, requires "independent and distinct inventions." See page 5 of Applicants' Petition filed on March 6, 2004.

On December 2, 2003, the Examiner maintained the Restriction Requirement between Groupings I and II and the Election of Species Requirement, making it Final,

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stating that election of species is based on claims drawn to patentably distinct inventions, and Applicants have not indicated otherwise.

Moreover still, the Examiner notes that the Species I-XII have not in any way been described as usable together in a single combination, or subcombination, and in fact, possible combinations of a hybrid Species, would indeed potentially rise to the level of new matter since there is absolutely no disclosure of the separate and distinct Species being usable together in a single combination and/or subcombination, as *originally disclosed*. Moreover, as is peppered throughout Applicants' original disclosure, the distinct Species identified by the Applicants corresponding to the Figures are expressly referenced as "another embodiment," "yet another embodiment," "still another embodiment," etc.

The Applicants further allege that "the specification states that 'the second side surface 46 can be used for increasing rigidity, controlling airflow, damping vibration, decreasing imbalance, and/or filtering impurities. With these designs, the storage disk 18 is asymmetrical.' " Applicants' emphasis. Therefore, the Applicants conclude, "these embodiments ("species") are not wholly unconnected in design, operation, and effect." See Applicants' Response, page 10, filed on March 8, 2004.

The Examiner vigorously disagrees with the Applicants' blanket statement; that the "and/or" clause somehow merits an unlimited amount of "hybrid" undisclosed embodiments.

Moreover still, the Examiner notes that the Species I-XII, which have been painstakingly described by the Applicants in rich and full detail and illustrations, have

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not in any way been described as usable together in a single combination, or subcombination, and in fact, possible combinations of a hybrid Species, would indeed potentially rise to the level of new matter since there is absolutely no disclosure of the separate and distinct Species being usable together in a single combination and/or subcombination, as *originally disclosed*. Moreover, as is peppered throughout Applicants' original disclosure, the distinct Species identified by the Examiner and distinctly identified by the Applicants corresponding to the Figures are expressly referenced as "another embodiment," "yet another embodiment," "still another embodiment," etc.

The aspect of "filtering impurities" is drawn distinctly and exclusively as detailed by the Applicants, to Species 7A and Species 7B. That is, by including an "adsorption layer 796A," the disk of the embodiment in FIG. 7A (as well as the embodiment of FIG. 7B) is able to adsorb organic and/or inorganic materials. The adsorption layer 796A is secured to the second side of the disk and is made of a porous material, which clearly is of a differing composition of layers than the first side region, which thus allows for *minimizing the imbalance* of the disk by selectively choosing the layer 796A and can thus be said to *affect the imbalance* of the disk as it is applied to the embodiment of FIGS. 7A and 7B, *exclusively*. The phrase at page 10, line 5, "decreasing imbalance, and/or filtering impurities," is construed to as meaning the "and/or" term modifies the "decreasing imbalance" phrase, *per se*, which is taken to represent that the adsorption layer, *per se*, functions to filter impurities and/or decrease imbalance (for instance by increasing the mass of the second side to offset the layers of

the first side). This interpretation is reasoned and sound based not only on the grammatical context of the phrase on page 10, but also on the Applicants' disclosure as a whole, i.e., based on the Applicants' own original disclosure of separate and distinctly disclosed embodiments. That is, the Applicants' drawings and *articulated, detailed description* of each separate and distinct embodiments as disclosed by the Applicants, do not show, describe or disclose or otherwise imply or infer an adsorption layer in combination with other embodiments. In fact, a "hybrid" ad hoc embodiment combining the adsorption layer 796A to the purposely exposed second side surface of the embodiment encompassed by Specie III, would seemingly destroy the advantages and features that are associated with such an exclusively disclosed and distinct embodiment of Specie III (corresponding to Figures 2F-2I) and also the embodiments of FIGS. 3A-3C (wherein the airflow controlling advantages would be rendered useless) as disclosed by the Applicants.

Moreover, in the *Applicants' own words*, "[t]he adsorption layer 796A can be adhesively applied to any of the layers of the second side region 762A of the storage disk 718, or can be secured by any other suitable method. The adsorption layer 796A can be the outermost layer on the second side region 762A of the storage disk 718, as illustrated in Figure 7A." See page 18, lines 10-15 of the Applicants' original specification. Emphasis in bold italics added.

The Applicants further allege that the separately disclosed, distinct species are connected in a conceptual fashion.

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The Examiner certainly does not disagree with the Applicants on this point. In fact, generally, all species are connected in some manner or fashion; e.g., eating utensils include separate and distinct species including knives, forks and spoons, all "connected" by the general concept of manual implements used mainly in the consumption of food.

The Applicants general connection among the separately disclosed and distinct species includes the general concept of an asymmetrical disk.

As it pertains to the separate and distinct eating utensils example, however, the spoon is indeed a separate and distinct species, that differs in structure when contrasted with the fork or knife, and vice versa.

The Applicants then begin to speculate about the possibility of merging distinctly and separately disclosed Species for which proposed merger there is absolutely no suggestions, express or implied, teachings or motivation to do so in Applicants' originally filed disclosure. This would be akin to filing a patent application initially disclosing, depicting and providing a detailed description of the separately disclosed and distinct eating utensils (e.g., spoon, fork and knife), and then at a later date, after the fact, contemplating a novel invention merging the spoon and fork to create a "spork" (spoon with the prongs of a fork at a distal end) and proclaiming that such a "spork" was within the bounds of Applicants' original scope of invention simply because Applicants listed writing utensils capable of spooning, cutting and/or picking up food, when there exists no prior suggestion to create such a novel and undisclosed "spork."

In fact, the originally filed claims (80 originally filed claims) do not set forth the merging of the now envisioned "hybrid species" or any hybridization of any of the distinctly disclosed and separate species of asymmetrical disks.

As an example, original claim 10, which depends from claim 2, recites structure pertaining to a “stiffener.” Claims branch 10 also includes claims dependent from (directly or indirectly) claim 10, which are 11-15. In none of those claims, is there recitation of structure, wherein the “stiffener” embodiment is merged with the separate and distinct species pertaining to “projections,” (FIGS. 5A, 5B) or an “adsorption layer” (FIG. 7A) or a “supplemental layer” (FIG. 6), etc.

Indeed, just the opposite is blatantly apparent - there are formed differing, *separate and distinct claim branches* for *each* of the separately disclosed and distinctly described and depicted embodiments - “stiffener” embodiment (e.g., see, *inter alia*, separate and distinct claim branch encompassing claims 10-18), the “projections” embodiment (FIGS. 5A, 5B) (e.g., see, *inter alia*, separate and distinct claim branch encompassing claims 23-24), an “adsorption layer” embodiment (FIG. 7A) (e.g., see, *inter alia*, separate and distinct claim branch encompassing claims 27-29), a “dampening” embodiment (FIGS. 4A and 4B) (e.g., see, *inter alia*, separate and distinct claim branch encompassing claims 19-22) or a “supplemental layer” embodiment (FIG. 6), (e.g., see, *inter alia*, separate and distinct claim branch encompassing claims 25-26) etc.

The Applicants had every opportunity while drafting the specification and originally filed plethora of claims to create even one claim branch which expressly sets forth some merging of species or yet, even suggest a possible combination of the disclosed separate and distinct species in the detailed written description; there is simply none.

The Applicants merely point to the functional word “and/or,” which if the Applicants are to be believed, allows them free reign to contemplate, speculate, and create novel and undisclosed hybrid species which are completely unsupported based on the Applicants’

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disclosure as originally filed with the U.S. Patent Office (disclosure including the Applicants' originally filed drawings, description, abstract and multitude of originally filed claims (80 claims)). The Applicants' original disclosure, inclusive of the abstract, claims and drawings speak for themselves. Not only does the preponderance of the facts weigh heavily in favor against such hypothesized, after-the fact hybridly merged species, it does so beyond a shadow of ambiguity.

The Examiner is not advocating that, generally speaking, species cannot be combined in a general sense, to create hybrid species; but in the *instant application*, there is simply no factual basis, express or implied, for such undisclosed and after-the-fact manipulation to create such a hybridization of species.

Additionally, the Examiner maintains that the restriction is proper and that a search for the plethora of distinct inventions would indeed impose a grave and serious burden upon the Examiner, as evidenced by, *inter alia*, the number of distinct inventions.

The Examiner maintains all that is required to show a restriction is proper, in addition to being a serious burden to the Examiner, is that the inventions be independent or distinct, not independent and distinct as Applicants apparently would have the Examiner believe.

More specifically, as set forth in MPEP § 803:

Under the statute an application may properly be required to be restricted to one of two or more claimed inventions only if they are able to support separate patents and they are either independent (MPEP § 806.04 - § 806.04(i)) **or** distinct (MPEP § 806.05 - § 806.05(i)). [Emphasis in bold italics added].

Moreover as set forth in MPEP § 802.01, the meaning of independent "and" distinct within the context of Patent Office restriction policy and practice is articulated as follows:

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35 U.S.C. 121 quoted in the preceding section states that the Commissioner may require restriction if two or more "independent and distinct" inventions are claimed in one application. In 37 CFR 1.141, the statement is made that two or more "independent and distinct inventions" may not be claimed in one application.

This raises the question of the subjects as between which the Commissioner may require restriction. This, in turn, depends on the construction of the expression "independent and distinct" inventions.

"Independent", of course, means not dependent. If "distinct" means the same thing, then its use in the statute and in the rule is redundant. If "distinct" means something different, then the question arises as to what the difference in meaning between these two words may be. The hearings before the committees of Congress considering the codification of the patent laws indicate that 35 U.S.C. 121: "enacts as law existing practice with respect to division, at the same time introducing a number of changes."

The report on the hearings does not mention as a change that is introduced, the subjects between which the Commissioner may properly require division.

The term "independent" as already pointed out, means not dependent. A large number of subjects between which, prior to the 1952 Act, division had been proper, are dependent subjects, such as, for example, combination and a subcombination thereof; as process and apparatus used in the practice of the process; as composition and the process in which the composition is used; as process and the product made by such process, etc. If section 121 of the 1952 Act were intended to direct the Commissioner never to approve division between dependent inventions, the word "independent" would clearly have been used alone. If the Commissioner has authority or discretion to restrict independent inventions only, then restriction would be improper as between dependent inventions, e.g., the examples used for purpose of illustration above. Such was clearly not the intent of Congress. Nothing in the language of the statute and nothing in the hearings of the committees indicate any intent to change the substantive law on this subject. On the contrary, joinder of the term "distinct" with the term "independent", indicates lack of such intent. The law has long been established that dependent inventions (frequently termed related inventions) such as used for illustration above may be properly divided if they are, in fact, "distinct" inventions, even though dependent.

Thus, clearly, the restriction is proper if the Examiner shows that the invention are distinct or independent, but not necessarily both independent and distinct.

Additionally, once again, it is noted that the Applicants **did not traverse on the ground that the species are not patentably distinct**. If the Applicants were to

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traverse on the ground that the species are not patentably distinct, the Applicants should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. If the Applicants were to include such a statement, the **election requirement would be withdrawn**. In either instance, however, if the Examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

Moreover, it is noted that claims 13 and 43 are directed to a non-elected Species IV (see Restriction Requirement, Paper No. 3, mailed October 9, 2003).

Thus, in summary, after a reconsideration of the Applicants' arguments in the Petition filed on March 8, 2004, the Examiner after direct consultation with the Special Programs Examiner Krista Zele, has reconsidered his position with regard to Claims 8, 9, 37, 38, 67 and 68 and has rejoined those claims as being generic to Species I-XII; i.e., the Sub-species election of invention is hereby **expressly withdrawn**, however the restriction between Groupings I and II, and Species I-XII as set forth in the original restriction requirement **remain in effect**.

Moreover, since the Amendment filed concurrently with the Petition request is defective for the reasons set forth below, the Amendment has NOT been entered.

Moreover still, the Examiner has vacated the previous Non-Final Office action (mailed December 2, 2003) and is setting forth a new Non-Final Office action based on the originally filed claims, wherein claims 8, 9, 37, 38, 67 and 68 have been examined on the merits in addition to previously elected claims, which correspond to the elected Group I and elected Species VI.

Thus, claims 11-13, 17, 19-22, 25-30, 42, 43, 47, 49-51, 54-58, 69 and 71-80 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a

nonelected invention, there being no allowable generic or linking claim. Applicants timely traversed the restriction (election) requirement in Paper No. 4, filed on November 10, 2003.

Claims 1-10, 14-16, 18, 23, 24, 31-41, 44-46, 48, 52, 53, 59-68 and 70 have been examined on the merits, *infra*.

Non-Responsive Amendment

The Amendment filed on March 8, 2004 is deemed to be not fully responsive to the prior Office Action because of the following omission(s) or matter(s):

Newly submitted Claims 81-107 filed with the Amendment on March 8, 2004, were not indicated as being readable on any particular Species, as per the requirement set forth in the original restriction requirement of October 9, 2003, which stated, “[i]f claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).”

It is noted however, the such an amendment is deemed moot, in view of the new Non-Final Office action being submitted herewith.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 31, 32, 34-40, 44-46, 48, 52 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by IBM Technical Disclosure Bulletin "Flexible Magnetic Disk Stabilizer," November 1977, Vol. No. 20, Issue No. 6, pages 2378-2379, Cross Reference 0018-8689-20-6-2378, referred to hereinafter as IBM TDB '2378.

As broadly set forth in claim 31 (and also claims 1 and 61, rejected, *infra*), (IBM TBD '2378) discloses a storage disk (e.g., integrated disk structure 4, 1 and 5) for a disk drive, the storage disk (4, 1, 5) comprising: a body region (1); a first side region (4) secured to the body region (1); and a substantially opposed second side region (5) secured to the body region (1); wherein the side regions are asymmetrical relative to the body region (1).

Note that at least independent claims 1, 31 and 61, are broad enough to read on a conventional disk drive having a single sided magnetic storage surface (having magnetic layer on one side and a substrate on the other with no magnetic layer). The Examiner, however, has at this time, cited document (IBM TBD '2378). The Examiner suggests amending the overly broad claims so as to obviate conventionally known structure so as to expedite prosecution on the merits to preclude any future claim rejections on such known prior art, which may occur, based on any potential amendments and/or arguments.

As per claims 32 (and claims 3 and 63, rejected *infra*), wherein the first side region (4) is adapted to store data, and the second side region (5) is not adapted to store data.

As per claims 34 (and claims 5 and 64, rejected *infra*), wherein the first side region (4) includes a magnetic layer, and the second side region (5) does not include a magnetic layer.

As per claim 35 (and claims 6 and 65, rejected *infra*), wherein the first side region (4) includes a first layer (magnetic material layer of (4)) and the second side region (5) includes a

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second layer (layer of fan blade (6)), the first layer and the second layer being "substantially" equidistant from the body region (1) - see Figures of (IBM TBD '2378), wherein the first layer (4) is formed from a material having a first composition, and the second layer is formed from material having a second composition that is different from the first composition (e.g. the composition of layer (4) is such that magnetic information can be stored and retrieved therefrom while the composition of (5) is not adapted for such storage of data - it includes a fan blade (6)).

As per claim 36 (and claims 7 and 66, rejected *infra*), as is evident from the Figures, the first side region (4) has a mass that is different than a mass of the second side region (5) - the layer (4) is thin and flexible, while the material (5) including blades (6) is rigid and much larger.

As per claim 37 (and claims 8 and 67, rejected *infra*), as is evident from the Figures, the first side region (4) has a thickness that is different than a thickness of the second side region (5) - the layer (4) is *thin* and flexible, while the material (5) including blades (6) is rigid and much larger and *thicker*.

As per claim 38 (and claims 9 and 68, rejected *infra*), as is evident from the Figures, the first side region (4) clearly has a density that is different than a density of the second side region (5) - the layer (4) is thin and flexible, while the material (5) including blades (6) is rigid and much larger, and thus the density is indeed different.

As per claim 39 (and claims 10 and 70, rejected *infra*), wherein the second side region (5) includes a stiffener (including blades (6)) that increases the rigidity of the storage disk (4, 1, 5).

As per claims 44 (and claims 14 and 70 rejected *infra*), wherein the stiffener (6) redirects fluid within a drive housing during rotation of the storage disk (4, 1, 5).

As per claim 45 (and claim 15, rejected *infra*), wherein the stiffener (6) is substantially

arc-shaped - see Figures of (IBM TBD '2378).

As per claims 46 (and claim 16, rejected *infra*), wherein the storage disk (4, 1, 5) includes a plurality of stiffeners (6) that increase the rigidity of the storage disk (4, 1, 5).

As per claims 40 and 48 (and claim 18, rejected *infra*), wherein the second side region (5) includes an outer flat section (5) and wherein each of the stiffeners (6) is raised above the outer flat region (5).

As per claim 52 (and claim 23, rejected *infra*), wherein the second side region (5) includes an outer flat section (5) and a plurality of projections (6) that extend above the outer flat section (5).

As per claim 59, wherein the first side region (4) has a first shape and the second side region (5) has a second shape, and wherein the first shape is different than the second shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 14-16, 18, 23, 24, 33, 41, 53, 60-68 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over (IBM TBD '2378).

See the description of (IBM TBD '2378), *supra*.

As per claims 2 and 62, wherein the storage disk (4, 1, 5) includes a first side region (4), a spaced apart second side region (5) and a body region (1) that is positioned between the side

regions, the side regions being asymmetrical relative to the body region (see enclosed Figures of (IBM TBD '2378)).

As per claims 3 and 63, see the rejection of claim 32, *supra*.

As per claims 5 and 64, see the rejection of claim 34, *supra*.

As per claims 6 and 65, see the rejection of claim 35, *supra*.

As per claims 7 and 66, see the rejection of claim 36, *supra*.

As per claims 8 and 67, see the rejection of claim 37, *supra*.

As per claims 9 and 68, see the rejection of claim 32, *supra*.

As per claims 10 and 70, see the rejection of claim 39, *supra*.

As per claims 14 and 70, see the rejection of claim 44, *supra*.

As per claim 15, see the rejection of claim 45, *supra*.

As per claim 16, see the rejection of claim 46, *supra*.

As per claim 18, see the rejection of claims 40 and 48, *supra*.

As per claim 23 and 63; see the rejection of claim 52, *supra*.

With regard to claims 1, 60 and 61, although (IBM TBD '2378) does not expressly disclose a disk drive inclusive of a housing (and method of forming such a disk drive) so as to enable spinning of the disk, Official notice is taken that disk drive housings including elements to enable disk rotation (e.g., a disk drive spindle motor) are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the disk, as taught by (IBM TBD '2378), within a conventional and

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ubiquitous disk drive.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the disk, as taught by (IBM TBD '2378), within a conventional and ubiquitous disk drive in order to utilize the advantages of the disk of (IBM TBD '2378) (e.g., an inexpensive disk within a conventional disk drive) within its *intended operating environment*.

Additionally, as per claims 4 and 33, the second side region (5) does not include any servo sectors (since it is not adapted to store data of any kind). However, (IBM TBD '2378) remains silent with respect to wherein the first side region includes a plurality of servo sectors on its data side.

Official notice is taken that servo sectors on magnetic information disk media of the type disclosed by (IBM TBD '2378), are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the disk, as taught by (IBM TBD '2378), with a servo sector within data-side (4) as is conventional and ubiquitous.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the disk, as taught by (IBM TBD '2378), with a servo sector within data-side (4) as is conventional and ubiquitous in order to accurately position the head (7) of (IBM TBD '2378) on the intended data track to record/reproduce information in an accurate manner, as is well known, established and appreciated in the art.

As per claims 24, 41 and 53, although (IBM TBD '2378) remains silent with respect to the particular dimensions of the disk, including wherein at least one of the projections (6) is raised above the outer flat region (5) by at least approximately 0.001 millimeters (claim 24, 41, 53), it is notoriously old and well known in the disk and disk drive art to routinely modify a disk structure in the course of routine optimization/ experimentation and thereby obtain various standard optimized relationships including those set forth in claims 24, 41 and 53.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the disk (4, 1, 5) of (IBM TBD '2378) have at least one projection (6) being a minimum of 0.001 millimeter above the flat surface (5) (as per claims 24, 41 and 53).

The rationale is as follows: one of ordinary skill in the art would have been motivated to have had the disk (4, 1, 5) of (IBM TBD '2378) have at least one projection (6) being a minimum of 0.001 millimeter above the flat surface (5) (as per claims 24, 41 and 53) in order to generate the desired sufficient vacuum as required by the disk of (IBM TBD '2378).

Moreover, "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 105 USPQ 233, 235 (CCPA 1955).

Additionally, absent a showing of criticality (i.e., unobvious or unexpected results), the relationships set forth in claims 24, 41 and 53 are considered to be within the level of ordinary skill in the art.

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Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

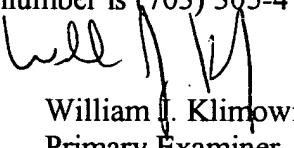
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is (703) 305-4700.


William J. Klimowicz
Primary Examiner
Art Unit 2652

WJK

November 24, 2003